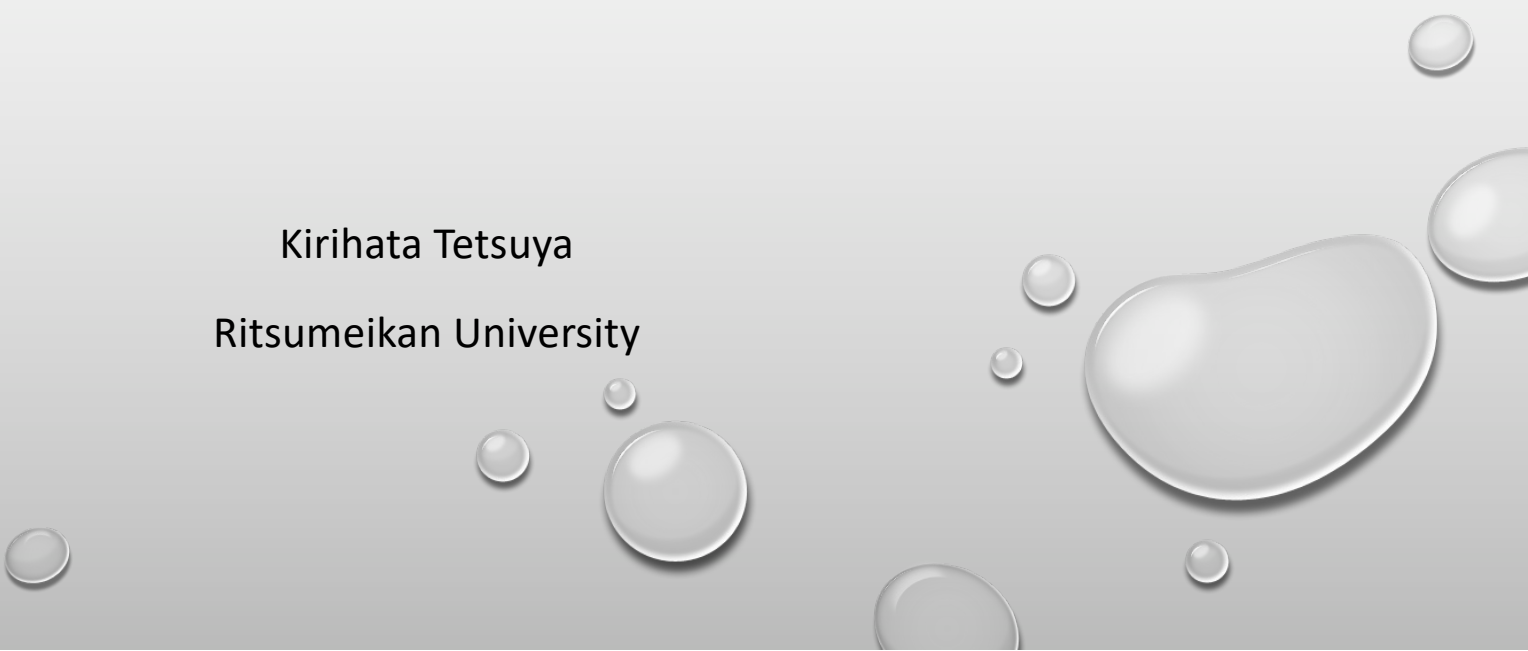




A comparison of entrepreneurship between Japan, the EU and the US

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Ritsumeikan University



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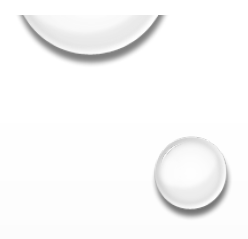

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2.2. Business environment (national and local level)

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2.4 . Education (knowledge, skills, experience and fear of failure)

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1. Current situation of entrepreneurship all over the world

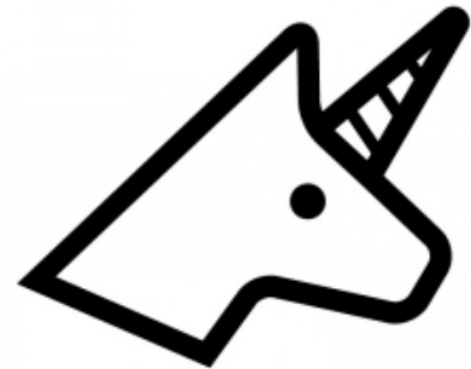
Top 10 companies by market capitalization around the world

Rank	Name	Market Cap	Price Today	Price (30 days)	Country
1	 Apple AAPL	\$2.550 T	\$154.30 0.42%		 USA
2	 Microsoft MSFT	\$2.263 T	\$301.14 0.00%		 USA
3	 Alphabet (Google) GOOG	\$1.923 T	\$2,896 0.39%		 USA
4	 Saudi Aramco 2222.SR	\$1.870 T	\$9.36 0.00%		 S. Arabia
5	 Amazon AMZN	\$1.761 T	\$3,478 0.43%		 USA
6	 Facebook FB	\$1.060 T	\$376.26 0.26%		 USA
7	 Tesla TSLA	\$734.86 B	\$733.57 0.16%		 USA
8	 TSMC TSM	\$642.91 B	\$123.97 2.63%		 Taiwan
9	 Berkshire Hathaway BRK-A	\$638.08 B	\$424,201 -1.04%		 USA
10	 Tencent TCEHY	\$605.76 B	\$63.11 -0.41%		 China

Unicorn company

A unicorn company, or unicorn startup, is a private company with a **valuation over \$1 billion**.

As of august 2021, there are more than **800 unicorns** around the world.



Unicorn companies in the U.S : 403 companies

18 *Decacorns*, valued at over \$10 billion

Company	Valuation (\$B)	Category
Stripe	\$95.00	Fintech
SpaceX	\$74.00	Other
Instacart	\$39.00	Supply chain, logistics, & delivery
Epic Games	\$28.70	Other
Databricks	\$28.00	Data management & analytics
Rivian	\$27.60	Auto & transportation
Chime	\$25.00	Fintech
Fanatics	\$18.00	E-commerce & direct-to-consumer
goPuff	\$15.00	E-commerce & direct-to-consumer
Plaid Technologies	\$13.40	Fintech
JUUL Labs	\$12.00	Consumer & retail
Biosplice Therapeutics	\$12.00	Health
Gusto	\$10.00	Fintech
reddit	\$10.00	Internet software & services
Talkdesk	\$10.00	Internet software & services
Aurora	\$10.00	Auto & transportation
Ripple	\$10.00	Fintech
Figma	\$10.00	Internet software & services

Unicorn companies in the EU : 60 companies

2 Decacorns, valued at over \$10 billion

Company	Valuation (\$B)	Country	Category
Klarna	\$45.60	Sweden	Fintech
Celonis	\$11.00	Germany	Data management & analytics
Northvolt	\$9.08	Sweden	Other
Mollie	\$6.50	Netherlands	Fintech
Trade Republic	\$5.30	Germany	Fintech
Bolt	\$4.75	Estonia	Auto & transportation
Vinted	\$4.53	Lithuania	E-commerce & direct-to-consumer
BitPanda	\$4.11	Austria	Fintech
BrowserStack	\$4.00	Ireland	Internet software & services
MessageBird	\$3.80	Netherlands	Mobile & telecommunications
Sorare	\$3.80	France	E-commerce & direct-to-consumer
Otto Bock HealthCare	\$3.52	Germany	Health
N26	\$3.50	Germany	Fintech
Back Market	\$3.20	France	E-commerce & direct-to-consumer
FlixBus	\$3.00	Germany	Auto & transportation
Contentful	\$3.00	Germany	Internet software & services
ContentSquare	\$2.80	France	Internet software & services

Unicorn companies in Japan : 6 companies

0 *Decacorns*, valued at over \$10 billion

Company	Valuation (\$B)	Category
Preferred Networks	\$2.00	Artificial intelligence
SmartHR	\$1.60	Fintech
SmartNews	\$1.20	Mobile & telecommunications
Paidy	\$1.20	Fintech
Liquid	\$1.00	Fintech
Playco	\$1.00	Other

Source: CB-Insights

Unicorn companies in China : 158 companies

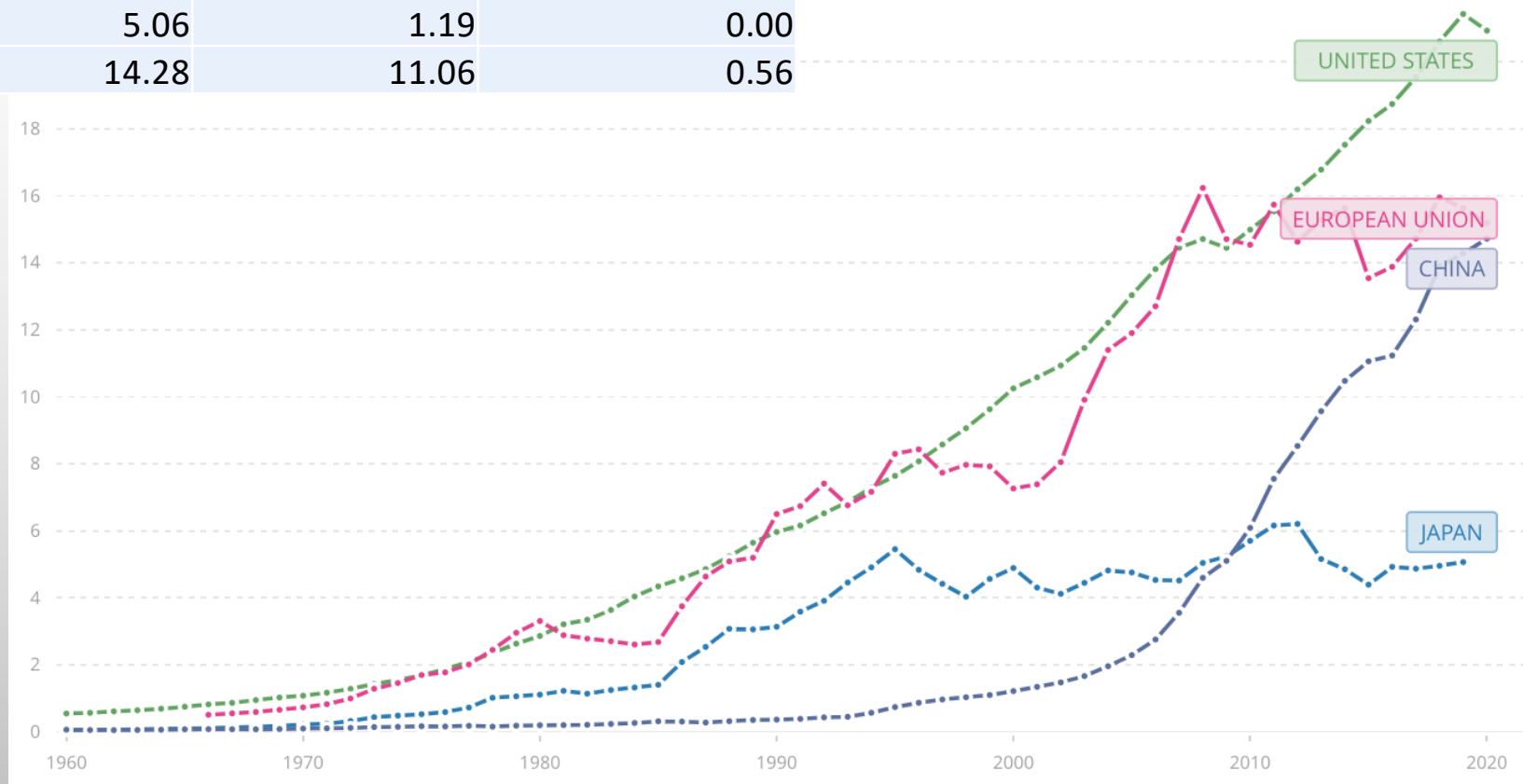
8 Decacorns, valued at over \$10 billion

Company	Valuation (\$B)	Category
Bytedance	\$140.00	Artificial intelligence
Yuanfudao	\$15.50	Edtech
DJI Innovations	\$15.00	Hardware
SHEIN	\$15.00	E-commerce & direct-to-consumer
SenseTime	\$12.00	Artificial intelligence
Bitmain Technologies	\$12.00	Hardware
ZongMu Technology	\$11.40	Auto & transportation
Weilong	\$10.88	Consumer & retail

Source: CB-Insights

Number of unicorn / GDP(trillion)

	GDP(trillion)	# Unicorn/GDP	#Decacorn/GDP
United States	21.43	18.81	0.84
European Union	15.63	3.84	0.13
Japan	5.06	1.19	0.00
China	14.28	11.06	0.56



2. Why is the U.S. so strong?

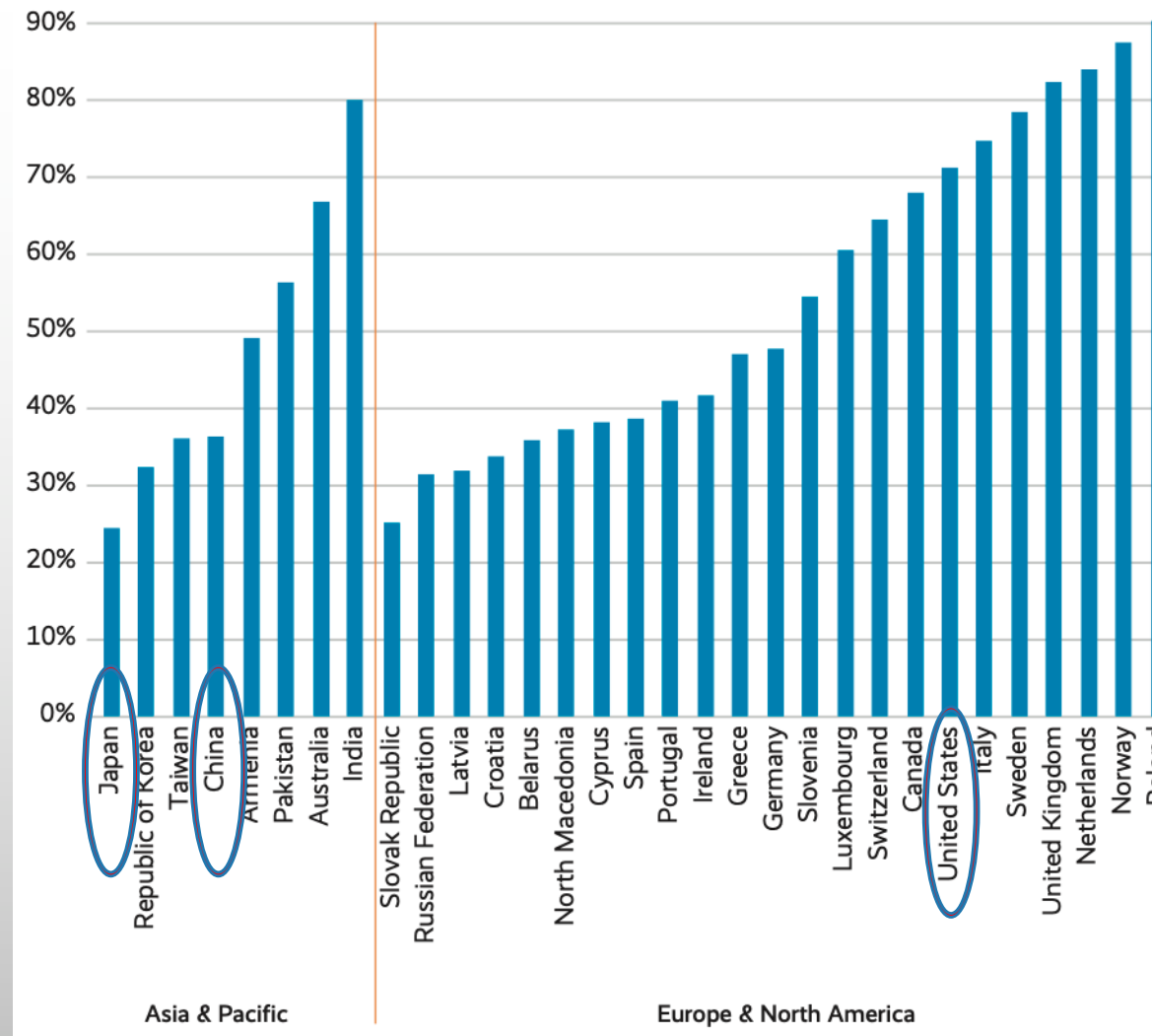
2.1. Money

	Number of investment	\$ of investment	%	\$ / Number of investment
US				
Angel/ Seed	3898	6800	8	1.74
Early	2734	30340	36	11.10
Later	1663	47830	56	28.76
Total	8295	84970	100	10.24
EU				
Seed	1135	667	10	0.59
Startup	2416	3679	57	1.52
Later	729	2089	33	2.87
Total	4280	6434	100	1.50
Japan				
Seed	232	138	15	0.59
Early	525	439	47	0.84
Expansion	273	262	28	0.96
Later	87	100	10	1.15
Total	1117	1445	100	1.29

Source: NVCA

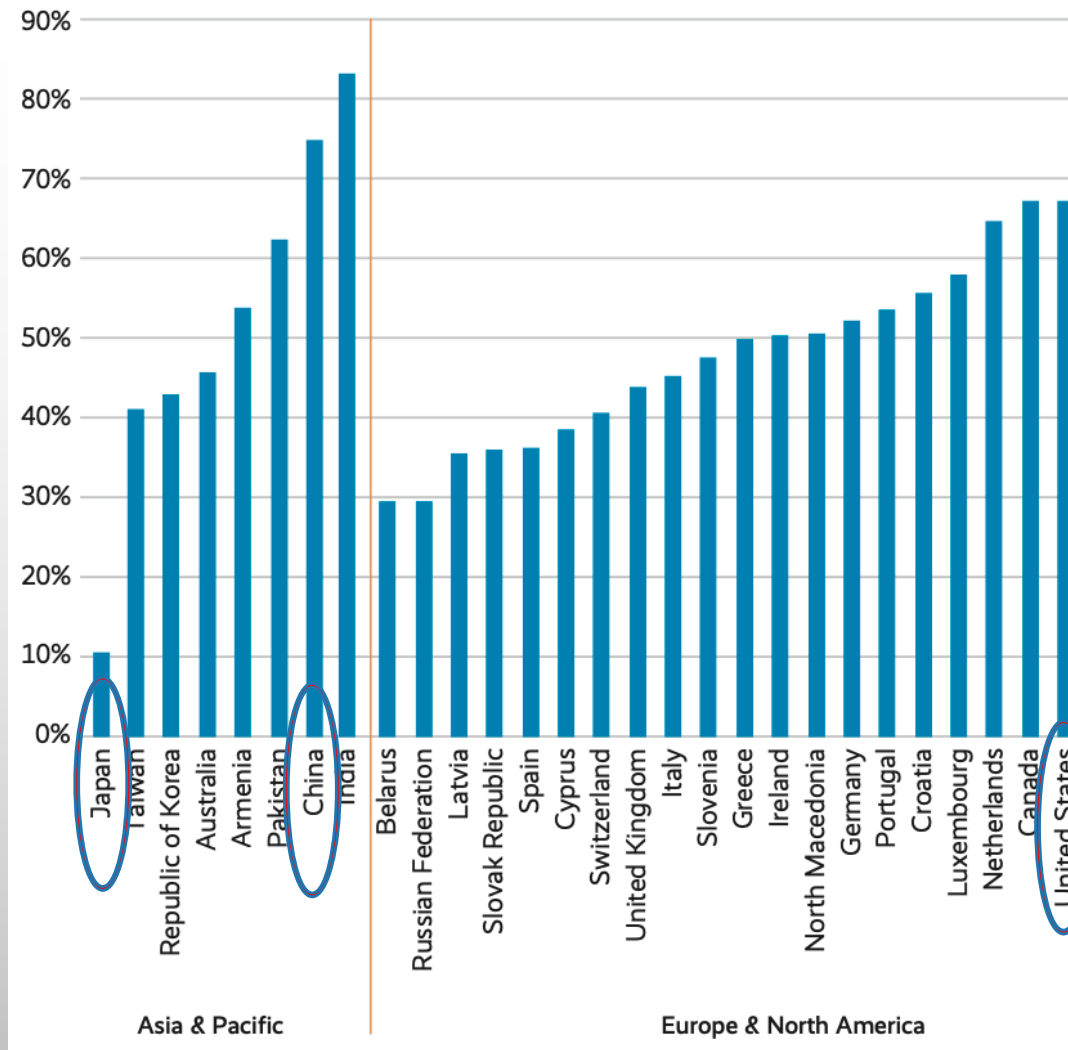
2.2. Business environment

In my country, it is easy to start a business



GEM adult population survey, 2019
















There are good opportunities to start a new business in my area


















GEM adult population survey, 2019

2.3. Academic activities

Journal ranking by country

	Country	↓ Documents	Citable documents	Citations
1	 United States	13817725	11986435	384398099
2	 China	7454602	7229532	78201759
3	 United Kingdom	4039729	3347117	102878206
4	 Germany	3515309	3151775	81454056
5	 Japan	3074206	2895478	54130480
6	 France	2437589	2203243	55858552
7	 India	2128896	1946730	22218913
8	 Italy	2072168	1840490	43760942
9	 Canada	2037509	1796688	52825596
10	 Australia	1638743	1423945	37937045
11	 Spain	1628362	1468464	32533936
12	 Russian Federation	1359443	1302809	11135903
13	 South Korea	1307978	1249982	20238524
14	 Brazil	1145853	1067185	14701837
15	 Netherlands	1131975	998112	34385395

	Country	Documents	Citable documents	↓ Citations
1	 United States	13817725	11986435	384398099
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6	 Japan	3074206	2895478	54130480
7	 Canada	2037509	1796688	52825596
8	 Italy	2072168	1840490	43760942
9	 Australia	1638743	1423945	37937045
10	 Netherlands	1131975	998112	34385395
11	 Spain	1628362	1468464	32533936
12	 Switzerland	845108	745124	26479916
13	 India	2128896	1946730	22218913
14	 Sweden	768416	691248	21754640
15	 South Korea	1307978	1249982	20238524

Source: Scimago institutions rankings

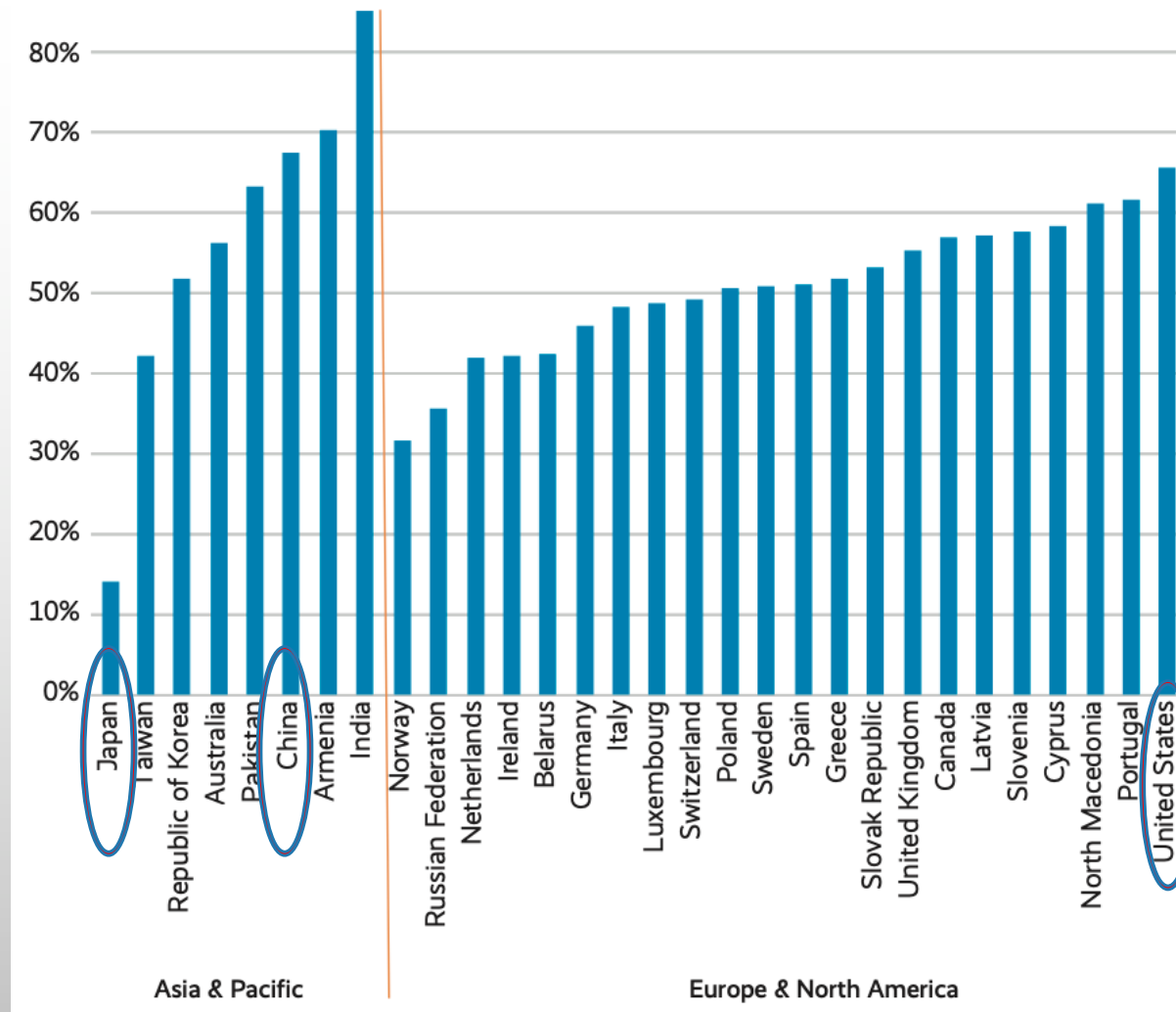
Documents, Citations / GDP

	GDP	Documents	Documents/GDP
United States	21.43	13817725	644784
European Union	15.63	16797042	1074667
Japan	5.06	3074206	607551
China	14.28	7454602	522031

	GDP	Citations	Citation/GDP
United States	21.43	384398099	17937382
European Union	15.63	370899111	23729950
Japan	5.06	54130480	10697723
China	14.28	78201759	5476314

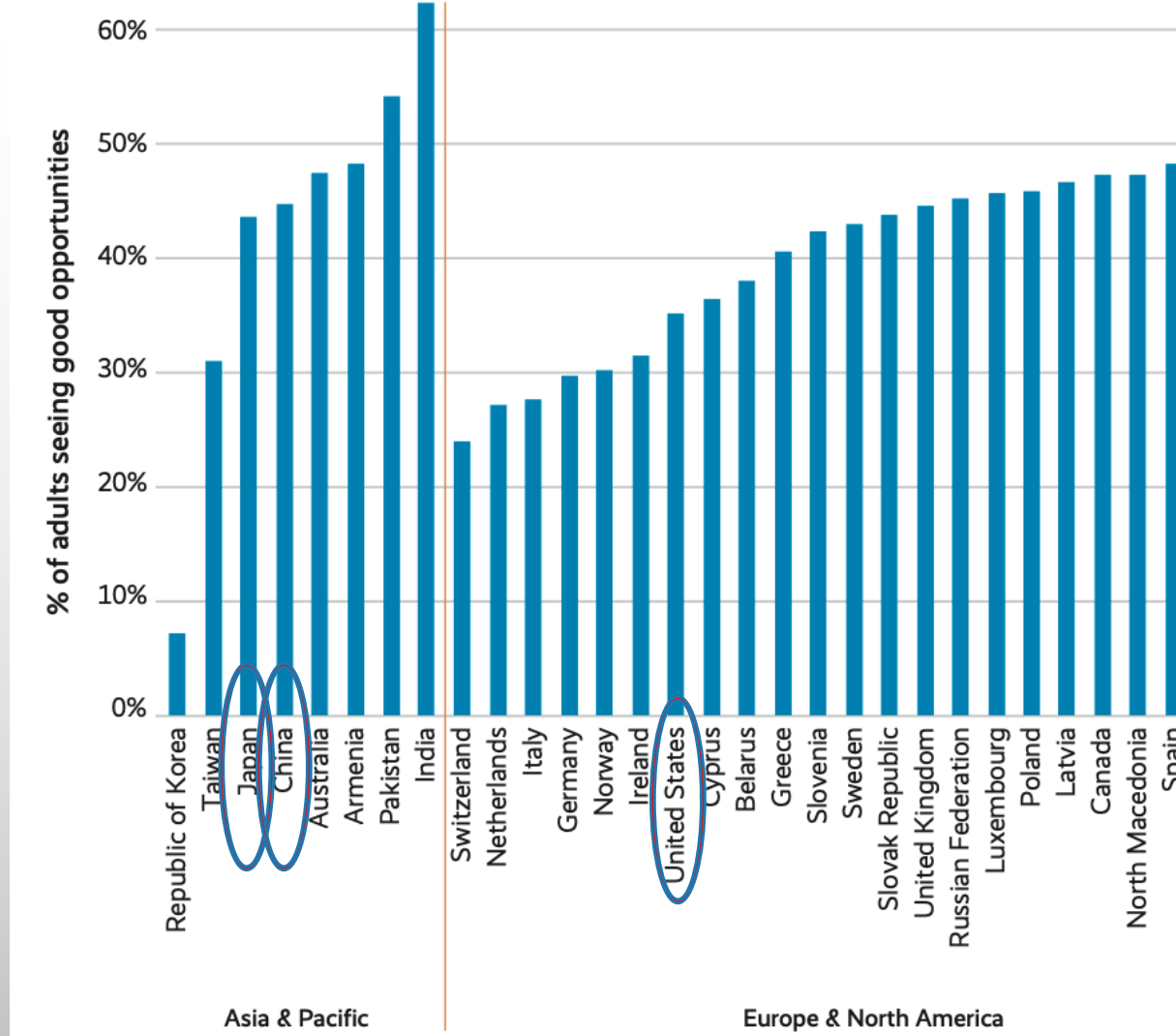
2.4.Education -Knowledge, skills and experience as entrepreneurs-

You personally have the knowledge, skills and experience to start a new business



Source: GEM adult population survey, 2019

There are good opportunities, but would not start a business for fear of failure



Source: GEM adult population survey, 2019

3. What should Japan do ?

Education

Quiz

- 1. Consider your lifetime earnings.
- 2. Consider your present value of lifetime earnings.

* Keywords "real options" "present value" "risk" "return"

Age	Estimated annual earnings (million yen)	Present value (million-yen, discount rate 3%)	Probability	Adjusted present value
23	100	97	100%	97
24
25				
26				
27				
28				
29				55
30				56
31				57
32				58
				59
				60

Quiz

Major companies					SMEs				Startups			
Age	Estimated annual earnings (million yen)	Present value (million-yen, discount rate 3%)	Probability	Adjusted present value	Estimated annual earnings (million yen)	Present value (million-yen, discount rate 3%)	Probability	Adjusted present value	Estimated annual earnings (million yen)	Present value (million-yen, discount rate 3%)	Probability	Adjusted present value
23	6		1	0.0	4	3.9	0.9	3.5				
24	6	6.3	1	6.3	4	3.8	0.9	3.4				
25	6	5.5	1	5.5	4	3.7	0.9	3.3	4000	3660.6	0.05	183.02833
26	6	5.3	1	5.3	4	3.6	0.9	3.2				
27	6	5.2	1	5.2	4	3.5	0.9	3.1				
28	6	5.0	1	5.0	4	3.3	0.9	3.0				
29	6	4.9	1	4.9	4	3.3	0.9	2.9				
30	8	6.3	1	6.3	5	3.9	0.9	3.6	4000	3157.6	0.05	157.88185
31	8	6.1	1	6.1	5	3.8	0.9	3.4				
32	8	6.0	1	6.0	5	3.7	0.9	3.3				
33	8	5.8	1	5.8	5	3.6	0.9	3.3				
34	8	5.6	1	5.6	6	4.2	0.9	3.8				
35	8	5.4	1	5.4	6	4.1	0.9	3.7	4000	2723.8	0.05	136.19027
36	8	5.3	1	5.3	6	4.0	0.9	3.6				
58	12	4.1	0.8	3.3	9	3.1	0.7	2.2				
59	12	4.0	0.8	3.2	9	3.0	0.7	2.1				
60	12	3.9	0.8	3.1	9	2.9	0.7	2.0				
RA	30	9.5	0.8	7.6	15	4.7	0.7	3.3				
	384	199	37	187	260	138	33	116				477